

PROJECT CONTACTS

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PURDUE







NUTRITION BY DEMAND RESEARCH AND TECHNOLOGY RESPOND TO MARKET DEMAND FOR CONVENIENT, NUTRITIOUS FOODS

Couscous, degue, thiakry, lakhou. Sorghum and millet are the key ingredients to countless West Africa staple dishes. The dishes come in many forms and are all rooted in years of rich history, serving as a key to food security for millions of people living in some of Africa's most challenging climates.

While these foods are an important source of nutrition for West Africans of all ages and backgrounds, they are often prepared using traditional methods that are labor-intensive and require multiple hours of preparation each day, a responsibility that typically falls to the women of the household. With increasing urbanization and disposable income, as well as a deeper understanding and demand for nutritionally-balanced diets, these food products are seeing a market-driven revolution.

Collaborative efforts between the Feed the Future Innovation Lab for Collaborative Research on Sorghum and Millet in partnership with numerous national research programs, international organizations and local initiatives have served as the driver for a new wave of business and nutritional opportunities.

Initially launched to help build greater demand for locally-produced grains and provide more reliable income for West African smallholder farmers, the initiative concentrates on the creation of entrepreneurial opportunities and networks for local women to produce traditional food products that are packaged, easy-to-prepare and ready for purchase by local consumers.

Both rural and urban models of this initiative have been established, and have included food product development and testing according to local contexts, says Timothy Dalton, director of the Feed the Future Innovation Lab for Collaborative Research on Sorghum and Millet. In addition to evaluating

preferences for food product type and processing method, testing has also been conducted around the fortification of grain-based products with locally available, highly nutritious ingredients such as moringa and baobab with encouraging results. Initial screenings have shown that consumers not only appreciate the flavor and texture of the fortified products, but are also willing to pay a premium for them.

"In consumer testing, we find that instant milletbased food products are rated equal, and even sometimes better, than traditional products," says Bruce Hamaker, food scientist at Purdue University and lead researcher on the food product development initiative. "The testing has also shown that consumers are willing to pay more for the instant products, especially if they are fortified."

It is the market-driven demand for these products that makes them so promising, both as an incomegenerator for local entrepreneurs and farmers, but also as a source for improved nutrition for individuals and families.

"The market appeal of these products is sustainable because they are being developed according to local food preferences and the availability of local ingredients," says Dalton. "This interaction between supply and demand means that it does not rely upon donor funding, logistical support or external supply."

And that, Dalton emphasizes, is key to the long-term success and impact of this initiative.

"What is needed now is continued support and empowerment to create more of these products," he says. "In both urban and rural areas, there are efficiency gains to be made through mechanization and the formation of more processors and cooperatives. Both strategies will increase the supply of locally-made foods to meet the rising demand."







INNOVATING SCIENCE TO BUILD THE CROPS OF THE FUTURE...

DRIVING INNOVATION

The Feed the Future Innovation Lab for Collaborative Research on Sorghum and Millet is a global hub of cutting-edge research focused on increasing the resiliency of small-scale sorghum and millet producers in the face of climate change and creating entrepreneurial opportunities to reduce poverty and hunger.

The Lab's portfolio is aimed at the development of new technologies, management practices and food and feed products to help serve some of the world's most vulnerable populations. It enlists more than a hundred researchers, postdoctoral associates, graduate students and project management team members representing research centers, national programs and universities from around the globe to create a robust and impactful program to drive innovation in addressing food insecurity.

WHAT WE ARE DOING:

CLIMATE-SMART AGRICULTURE

Harnessing both time-tested breeding methods as well as the most advanced in genomic tools to create new crop varieties that are more drought, disease and pest resistant for improved yields and higher incomes for the smallholder farmer

IMPROVED RESILIENCE

Designing innovative production techniques aimed at improving crop performance while combatting devastating pests in order to increase food security throughout rural areas

MARKET ACCESS AND DEMAND

Working to drive improved nutrition, business opportunities and higher crop value through a new wave of processed and fortified food products that meet growing demands by urban and rural populations alike





FEED THE FUTURE INNOVATION LAB

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